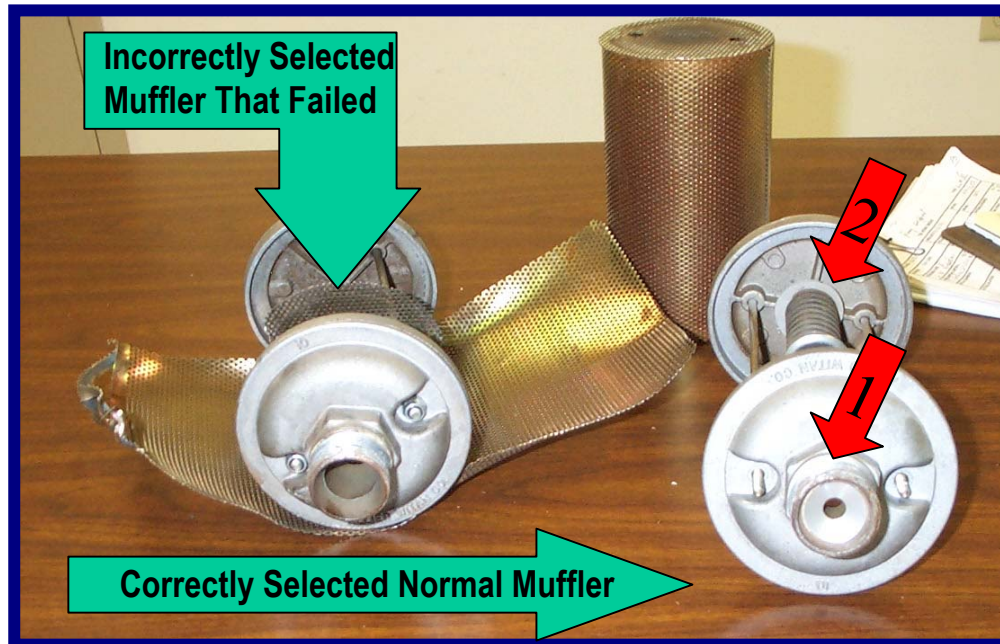


MSFC Safety Bulletins

Muffler Failure Under Pressure Could Cause Personal Injury

What Happened?

The #1 Wind Tunnel Compressor located in Building 4607 unloaded (released built up pressure) at approximately 400 PSI. The OEM-installed sound suppression muffler was incorrect for the operating conditions, and resulted in the muffler exploding. Fortunately, no one was in the immediate area when the failure occurred.



Note the orifice size 1 and relief device 2 on the muffler.

What Caused This Incident?

Compressors often have pressure blowdown valves that automatically release compressed gas inside the compressor at the conclusion of the operating cycle. Compressors running under normal conditions will unload pressure several times a day.

Gas passing through the compressor blowdown valve under high pressure creates harmful noise levels. Escaping gas is sent through a muffler to lower the noise to a safe level, protecting employees' hearing.

The failed muffler installed by the OEM had been improperly selected for the operating pressure of the compressor.

The muffler that failed did not have:

- 1) a restriction orifice on it's inlet,
- 2) a relief device. [See red arrows.](#)

How Can We Prevent Similar Incidents?

Check your equipment to ensure that all mufflers installed on MSFC equipment having system pressures above 100 PSI are equipped with a relief device and a properly sized inlet orifice. [Questions? Contact the manufacturer of the muffler you are using.](#)